

PULSE™ 2100LG

PC/ABS Engineering Resin

Trinseo

Message:

PULSE™ 2100LG Engineering Resin is designed to provide top performance in tough applications, from single piece items to intricate components. Ideal for energy management solutions, it can withstand high and low temperature extremes and rapid, repeated temperature fluctuations.

Benefits:

Low gloss appearance

-20°F Ductility

Wide range of performance

Superior processability

Lot to lot consistency

Good chemical resistance

General Information			
Features	Ductile		
	Good Chemical Resistance		
	Good Processability		
	Good Thermal Stability		
	Low Gloss		
Appearance	Colors Available		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.13	g/cm ³	ASTM D792, ISO 1183/B
--	1130	kg/m ³	ISO 1183 ¹
Melt Mass-Flow Rate (MFR)			
230°C/3.8 kg	4.5	g/10 min	ASTM D1238
260°C/3.8 kg	4.5	g/10 min	ISO 1133
Melt volume-flow rate (230°C/3.8 kg)	1.00	cm ³ /10min	ISO 1133 ²
Molding Shrinkage			
Flow	0.60	%	ASTM D955
--	0.60	%	ISO 294-4
Water Absorption (23°C, 24 hr)	0.15	%	ASTM D570, ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
3.20 mm, Injection Molded	2340	MPa	ASTM D638
--	2500	MPa	ISO 527-2
--	2090	MPa	ISO 527-2 ³
Tensile Strength			
Yield, 3.20 mm, Injection Molded	53.1	MPa	ASTM D638

Yield	51.0	MPa	ISO 527-2
Yield	48.0	MPa	ISO 527-2 ⁴
Break, 3.20 mm, Injection Molded	53.8	MPa	ASTM D638
Tensile Elongation			
Yield, 3.20 mm, Injection Molded	5.0	%	ASTM D638
Yield	4.5	%	ISO 527-2
Yield	4.9	%	ISO 527-2 ⁵
Break, 3.20 mm, Injection Molded	130	%	ASTM D638
Break	120	%	ISO 527-2
Nominal strain at break	> 50	%	ISO 527-2 ⁶
Flexural Modulus			
3.20 mm, Injection Molded	2340	MPa	ASTM D790
--	2300	MPa	ISO 178
Flexural Strength			
3.20 mm, Injection Molded	80.7	MPa	ASTM D790
--	78.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength			ISO 179/1eA ⁷
-30°C	30.0	kJ/m ²	
23°C	45.0	kJ/m ²	
Charpy impact strength			ISO 179/1eU ⁸
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			
-29°C, 3.20 mm, Injection Molded	530	J/m	ASTM D256
23°C, 3.20 mm, Injection Molded	640	J/m	ASTM D256
-40°C	24	kJ/m ²	ISO 180
-30°C	32	kJ/m ²	ISO 180
23°C	52	kJ/m ²	ISO 180
Instrumented Dart Impact ⁹			ASTM D3763
-29°C, 3.20 mm, Peak Energy	62.1	J	
23°C, 3.20 mm, Peak Energy	56.5	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	129	°C	ASTM D648
0.45 MPa, Unannealed	128	°C	ISO 75-2/B
0.45 MPa	126	°C	ISO 75-2 ¹⁰
1.8 MPa, Unannealed, 3.20 mm	107	°C	ASTM D648
1.8 MPa, Unannealed	106	°C	ISO 75-2/A
1.8 MPa	104	°C	ISO 75-2 ¹¹
Vicat Softening Temperature			
--	143	°C	ASTM D1525 ¹²

--	142	°C	ISO 306/A120
--	128	°C	ISO 306/B50
50°C/h, B (50N)	128	°C	ISO 306 ¹³
CLTE - Flow			
-40 to 82°C	7.4E-5	cm/cm/°C	ASTM D696
--	7.5E-5	cm/cm/°C	ISO 11359-2 ¹⁴
Optical	Nominal Value	Unit	Test Method
Gardner Gloss (60°, Smooth)	25		ASTM D542
GMCP88 - Light Stipple	6.5	%	ASTM D542
Monticello	3.3	%	ASTM D542
NOTE			
1.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
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4.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
5.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
6.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
7.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
8.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
9.	6.60 m/sec		
10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
11.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
12.	Rate A (50°C/h), Loading 2 (50 N)		
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
14.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		

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